

Middle Atmosphere Sounder and Thermal Emission Radiometer (MASTER)

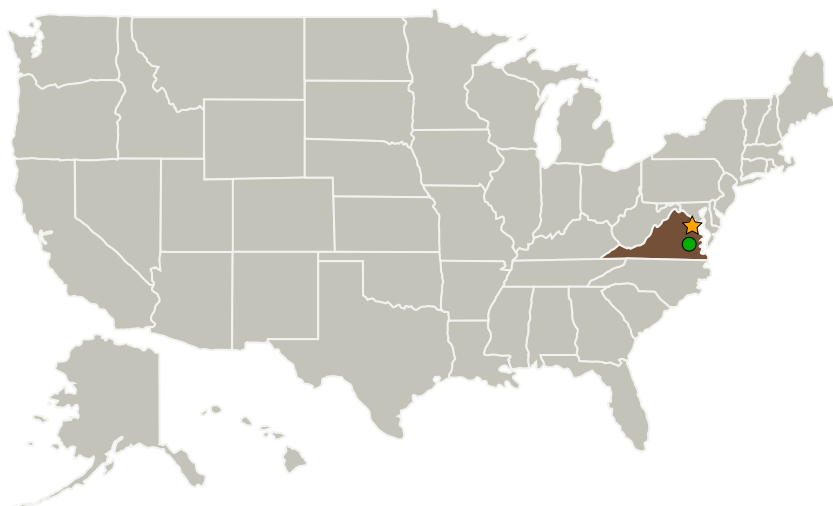
Completed Technology Project (2014 - 2014)



Project Introduction

Develop a compact instrument design for measurements of stratospheric temperature, ozone, carbon dioxide, and water vapor essential to understanding climate. MASTER would: enable an instrument concept to fill the data gap beyond EOS-Aura develop a small, low-cost infrared limb sounder based on experience with NASA SABER, HIRDLS, and LIMS instruments advance a design applicable to a hosted payload or to a small satellite for sustainable measurements over coming decades provide a mass/power design of 35 kg/35 W (half of the current SABER instrument)

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
● Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Primary U.S. Work Locations

Virginia



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Organizational Responsibility

Responsible Mission Directorate:

Science Mission Directorate (SMD)

Lead Center / Facility:

NASA Headquarters (HQ)

Responsible Program:

Earth Science

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Project Management

Program Director:

George J Komar

Principal Investigator:

Martin G Mlynczak

Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.4 Microwave, Millimeter-, and Submillimeter-Waves

Target Destination

Earth